

FIG. 1A

[FIRST CYLINDER]

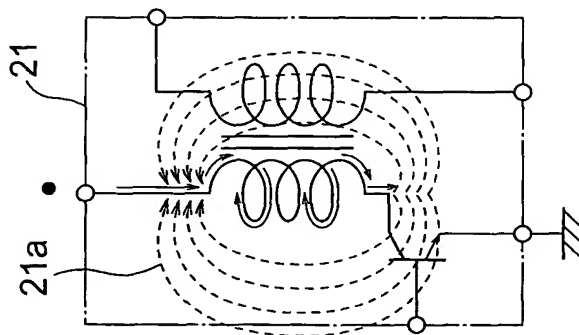


FIG. 1B

[SECOND CYLINDER]

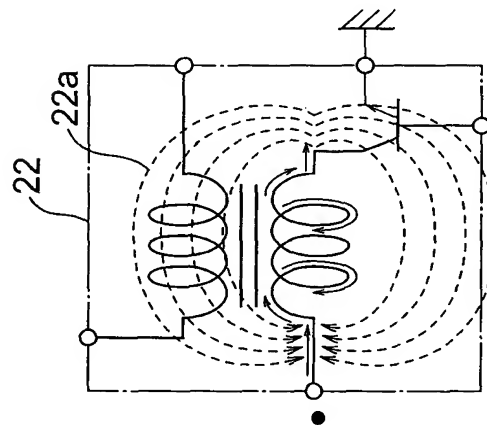


FIG. 1C

[THIRD CYLINDER]

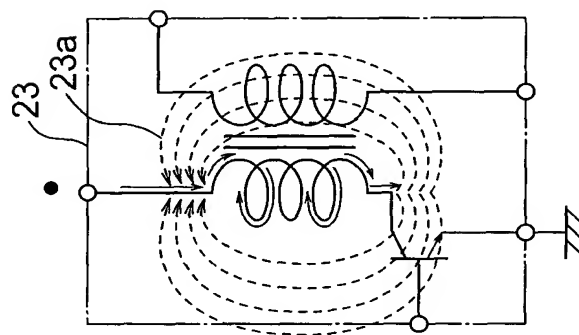


FIG. 1D

[FOURTH CYLINDER]

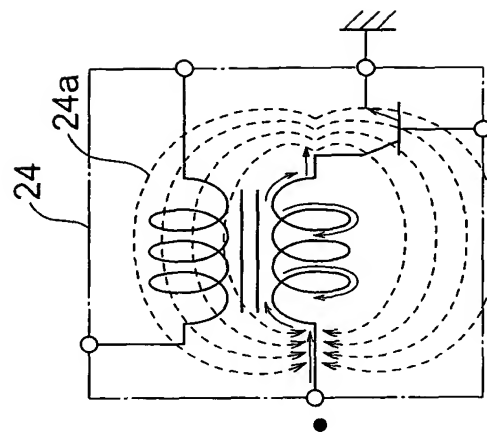


FIG. 2

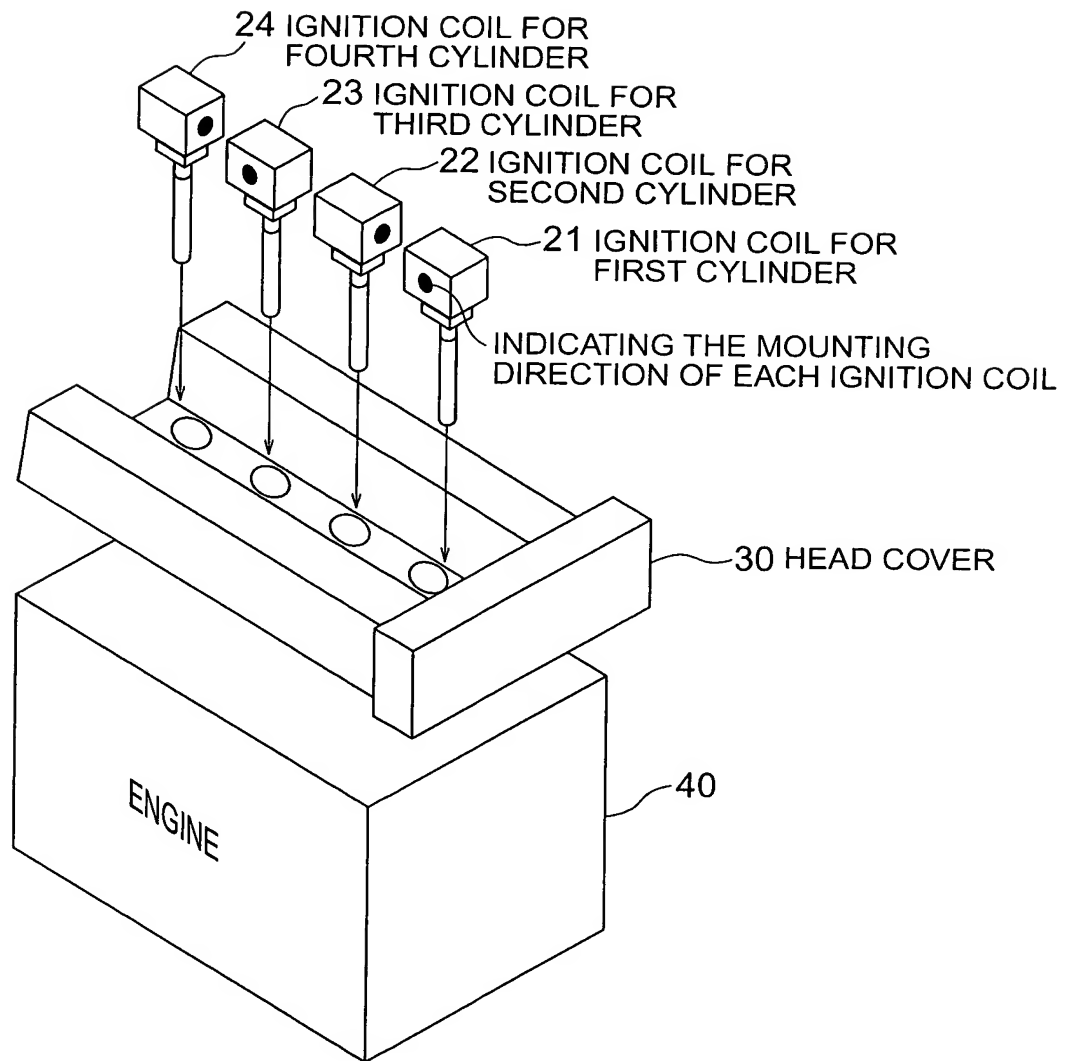


FIG. 3

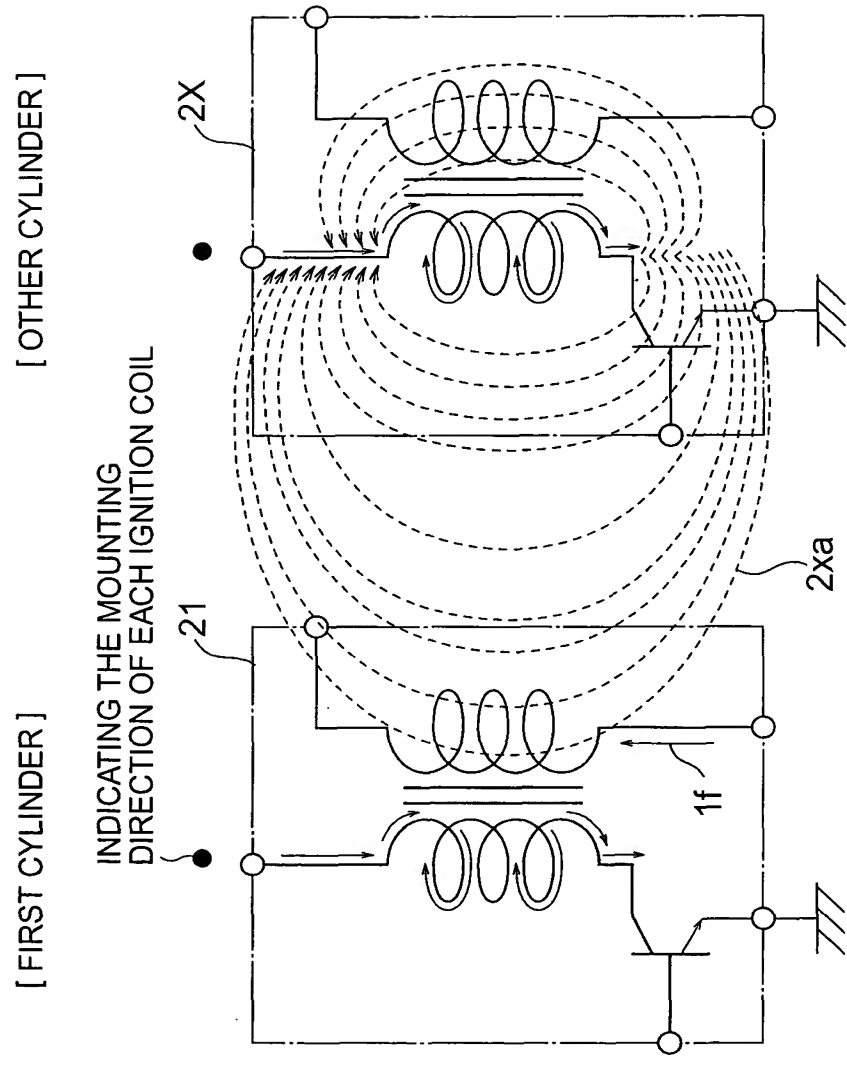


FIG. 4A

IGNITION SIGNAL FOR FIRST CYLINDER
START OF ENERGIZATION

FIG. 4B

IGNITION SIGNAL FOR SECOND - FOURTH CYLINDERS

VIBRATION COMPONENT OF KNOCKING
OTHER CYLINDERS START OF ENERGIZATION
PREDETERMINED TIME

FIG. 4C

IONIC CURRENT

FALSE IONIC CURRENT if COMBUSTION PULSE THRESHOLD VALUE

FIG. 4D

REGULAR COMBUSTION PULSE
COMBUSTION PULSE TRAIN

ERROR PULSE

FALSE KNOCK COMPONENT SIGNAL

FIG. 4E

KNOCK COMPONENT SIGNAL

COMBUSTION PULSE THRESHOLD VALUE

FIG. 4F

REGULAR KNOCK PULSES
KNOCK PULSE TRAIN

ERROR KNOCK PULSE

FIG. 4G

IONIC CURRENT AFTER LIMITATION OF IONIC CURRENT

COMBUSTION PULSE THRESHOLD VALUE

NO FALSE IONIC SIGNAL IS GENERATED

FIG. 4H

REGULAR COMBUSTION PULSE
COMBUSTION PULSE AFTER LIMITATION OF IONIC CURRENT

FIG. 4I

KNOCK COMPONENT SIGNAL AFTER LIMITATION OF KNOCK DETECTION

COMBUSTION PULSE THRESHOLD VALUE

FIG. 4J

KNOCK PULSE TRAIN

REGULAR KNOCK PULSES

FIG. 5

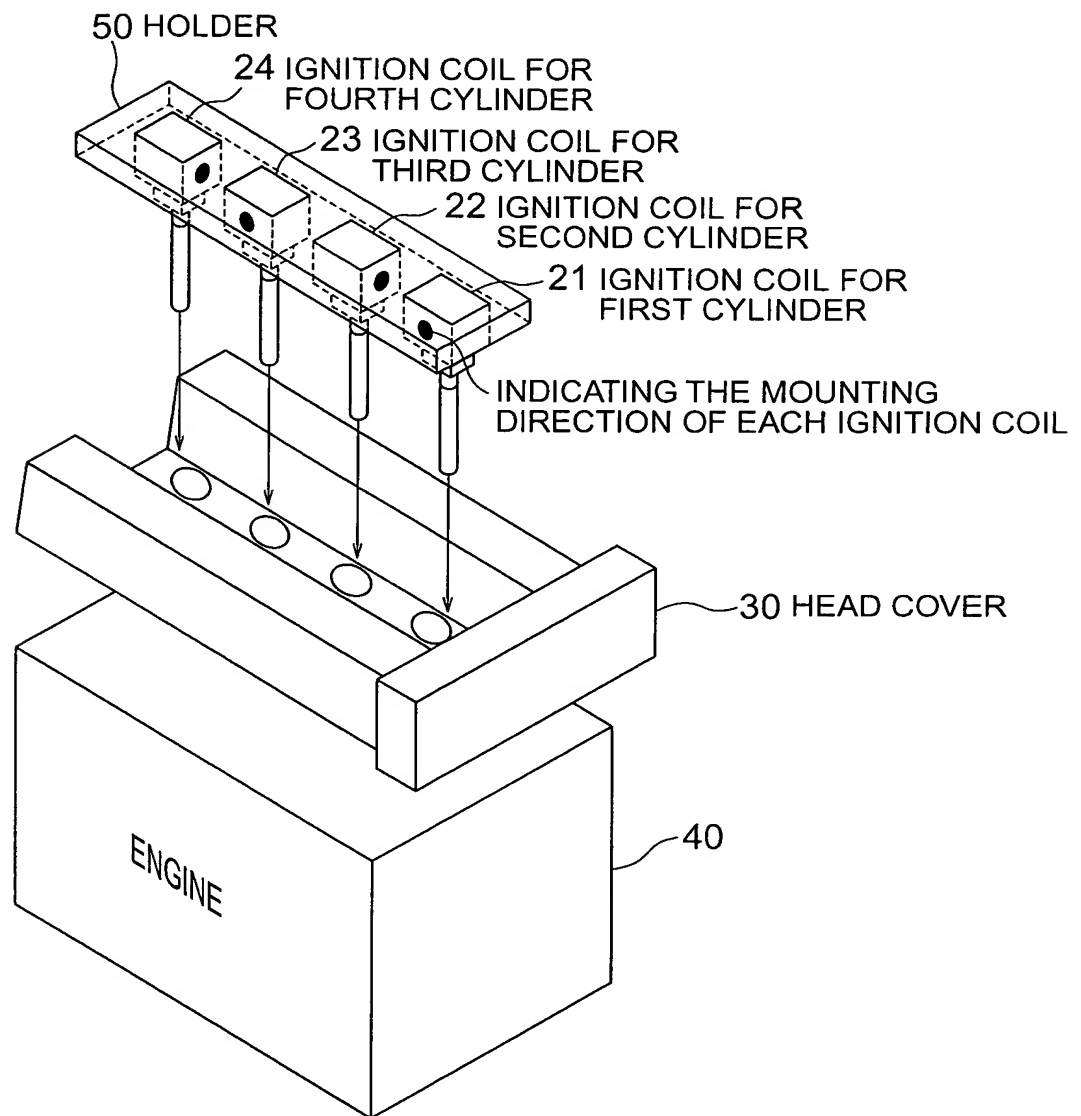


FIG. 6

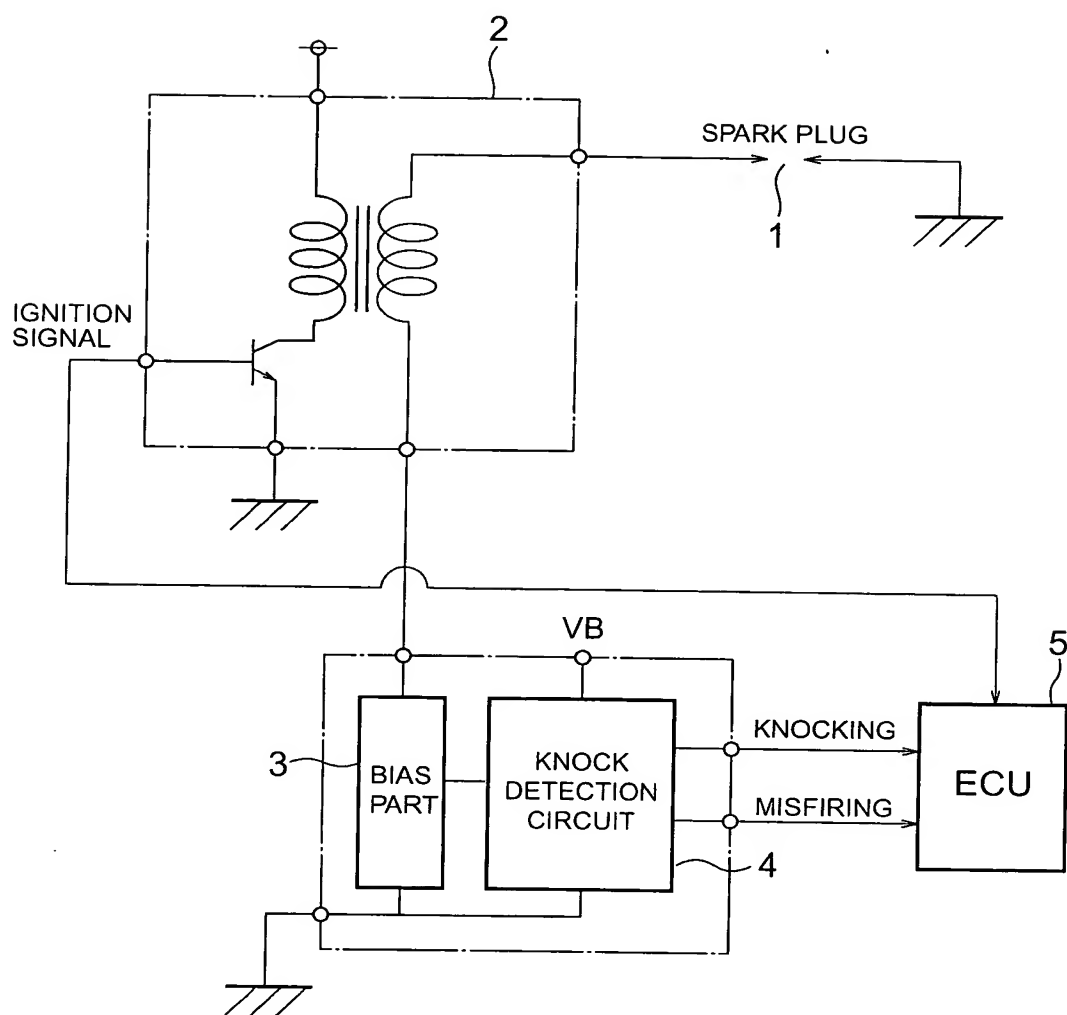


FIG. 7

